

CLAIM AMENDMENTS

1. (Currently Amended) A method of broadcasting television programming including:

generating an analog video signal [[to provide a digitally encrypted audio signal]];
digitally encrypting an audio signal to provide a digitally encrypted audio signal;
modulating a carrier with said digitally encrypted audio signal and said analog video signal; and

[[broadcasting said audio and video signals using a cyclic prefix as a guard interval while spacing subcarriers adjacent to corresponding frequencies.]]

using a cyclic prefix as a guard interval to broadcast said carrier with a subcarrier, said subcarrier broadcast at a frequency adjacent a frequency of said subcarrier.
2. (Original) The method of claim 1 wherein modulating a carrier with said digitally encrypted audio signal includes using orthogonal frequency division multiplexing to form symbols.
3. (Original) The method of claim 2 including using an inverse Fourier transform to convert a frequency domain signal back to the time domain.
4. (Original) The method of claim 3 including providing a guard interval with an orthogonal frequency division multiplexing symbol.
5. (Cancel)
6. (Original) The method of claim 4 including setting the guard interval to a time equal to the worst case multi-path delay.
7. (Original) The method of claim 6 including setting the multi-path delay time about 250 microseconds.
8. (Original) The method of claim 7 including setting the guard interval to less than about one quarter of the symbol duration and setting the symbol time to about one millisecond.

9. (Original) The method of claim 1 wherein modulating a carrier includes using a conventional FM subcarrier and modulating said carrier with said audio signal.

10. (Original) The method of claim 7 including synthesizing a carrier to form a frequency modulated subcarrier.

11. (Original) The method of claim 1 wherein generating an analog video signal includes generating an analog video signal with a graphical overlay pattern.

12. (Currently Amended) A television transmitter comprising:
a graphics pattern generator that provides a graphics pattern for an analog video signal;
an analog-to-digital converter coupled to said graphics pattern generator to receive an analog audio signal;
a digital encryption stage coupled to said analog-to-digital converter; [[and]]
a modulator coupled to said digital encryption stage; and
a broadcaster to use a cyclic prefix as a guard interval [[while spacing subcarriers adjacent to corresponding frequencies]] to broadcast a carrier with a subcarrier, said subcarrier broadcast at a frequency adjacent a frequency of said subcarrier.

13. (Original) The transmitter of claim 12 wherein said modulator uses orthogonal frequency division multiplexing.

14. (Original) The transmitter of claim 13 further including an inverse Fourier transform unit coupled to said modulator.

15. (Currently Amended) The transmitter of claim 14 including a digital-to-analog converter coupled to said inverse Fourier transform unit.

16. (Original) The transmitter of claim 13 including a device that overlays said graphics pattern on an analog video signal.

17. (Original) The transmitter of claim 13 including a modulator that modulates a carrier with said analog video signal with said overlaid graphics pattern.

18. (Currently Amended) A television receiver comprising:
a video detector to separate a received television signal into audio and video components;
a device coupled to said video detector to remove the graphics overlay from an analog video signal;
an analog-to-digital converter coupled to said audio signal;
a decryption stage coupled to said analog-to-digital converter; and
a demodulator coupled to said decryption stage to demodulate a carrier with a subcarrier using a cyclic prefix as a guard interval, said subcarrier broadcast at a frequency adjacent a frequency of said subcarrier. [[while spacing subcarriers adjacent to corresponding frequencies.]]

19. (Original) The receiver of claim 18 wherein said demodulator demodulates using orthogonal frequency division multiplexing.

20. (Original) The receiver of claim 18 further including a Fourier transform unit coupled to said demodulator.

21. (Currently Amended) The receiver of claim [[18]] 20 including an [[analog-to-digital]] digital-to-analog converter coupled to said Fourier transform unit.